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DESCRIPTIONS OF THREE NEW AND ONE
UNRECORDED SPECIES OF THE GENUS *ACLERIS* HB.¹⁾

By ATSUSHI KAWABE²⁾

In writing this paper, I must express my hearty thanks to Dr. N. YAGI and Dr. H. SAWADA, Tokyo Agricultural University for their cordial guidance and constant encouragement, and also to Dr. H. INOUE for his kindness given me in various ways in the course of my study. I also owe greatly Dr. J. RAZOWSKI, Zoological Institute, Polska Akademia Nauk, Krakow, who not only gave me proper advice on *Acleris pulchella* and *A. apicana*, but also alienated me the publication of the former. My thanks are also due to the following entomologists : Messrs. K. IJIMA, K. JIMBO, M. HOSHINO, T. MAENAMI, K. MIZUSAWA, S. SUGI and M. SUZUKI, for their kind gifts of specimens.

Acleris dicolor sp. nov. (figs. 4, 10)

Head and antenna grayish brown, scattered and mixed with light-grayish. palpus grayish brown mixed with light gray externally, whitish interiorly; median joint triangularly dilated towards apex; terminal joint shortly exposed. Thorax including tegula orange-yellow, with a dark orange-yellow crest. Abdomen metallic-leaden, mixed with grayish brown; anal tufts pale orange-yellow. The ground color of forewing bicolored, border line dividing the two colors sinuous from near base of dorsum to before apex; basi-costal area orange-yellow, but its apical portion darker orange, the remaining area metallic-leaden, scattered with pale grayish brown and yellow scales, especially shaded with darker on its basal portion along the lower margin of the basi-costal area, many narrow striae on its apical portion; two raised scale-tufts at about proximal 1/3 of wing, one dark grayish brown, mixed with dark orange-yellow scales at just above fold, the other dark orange-yellow at just below fold; a white, small, nail-marked patch and an orange-yellow, raised scale-tuft on the border line: viz. about the middle of forewing; two scarcely raised scale-dots along the dorsum light grayish yellow. Cilia pale grayish yellow, somewhat more gray towards apex. The length of the forewing 9mm. in ♂, 11mm. in ♀.

Hindwing brownish gray, darker apically, lighter dorsally and basally. Cilia somewhat paler than the ground color.

Male-genitalia (fig. 10): Tegumen broad, bilobed at top. Socius very large and elongate, erected, emarginated with dense hairs. Transtilla a faintly arched band. Valva elongate. Brachiola rather small. Sacculus finely excavated at about 1/3 of lower margin, forming a blunt angle on the outer side of the excavation, with dense hairs broadly emarginated beyond the excavation. Aedeagus simple; cornuti two strong spines.

Female-genitalia: Unknown to me.

Holotype: Naka-karusawa, Nagano Pref., Honshu, 23 Sept. 1962, T. MAENAMI leg.

Paratypes: Ussui Pass, Nagano Pref., Honshu, 23 & 24 Sept. 1951, 1♂, 1♀, M. HOSHINO leg.

All the types are in my collection. Unfortunately the abdomen of the two paratypes were missing

1) Taxonomic studies of the Japanese Tortricinae (2) (Lepidoptera, Tortricidae), (1) : *Tinea*, Vol. 6, nos. 1/2, pp. 5-8, 1963.

2) Hosei Second High School, Kizuki, Kawasaki, Kanagawa Pref.

when I received them from Mr. M. HOSHINO. This beautiful moth seems to be rare, since I have seen only the above recorded specimens.

Acleris pulchella sp. nov. (figs. 3, 13, 14)

Head, antenna and palpus sulphur yellow. Antenna shortly ciliated in male, simple in female. Palpus: median joint dilated apically with rough scales; terminal joint shortly exposed. Thorax including crest and tegula deep yellow, mixed with ochreous yellow anteriorly, dark reddish brown posteriorly, tinged with dark red-purple, showing violet metallic reflection in certain lights. Abdomen brownish gray; anal tufts pale yellow. The ground color of forewing glossy pale canary-yellow, scattered with reddish brown striae, somewhat reticulate; a band extending from basal patch running along costa and termen, leaving a narrow, pale yellow costal area from beyond 1/3 of costa to before apex; two transverse fasciae from the lower edge of the above described band, the first fascia broad, arising from before 1/2 of the band to the middle of dorsum, with inner edge bowed inward, but its outer edge abruptly projected on lower margin of cell; the second fascia narrow and oblique, from about 2/3 of the band to near tornus; some specimens have the third indistinct fascia from near apical portion of the band, narrowed above, diffused below; the basal patch, the band and the fascia dark reddish brown, suffused and mixed with glossy dark red-purple, shining violet metallic reflection in certain lights; a few minutely raised scale-tufts blackish brown, mixed with ochreous yellow, one of them about the middle of forewing; the others on apical portion. Cilia shining pale yellow, clouded with brownish gray about the tornus. The length of forewing 6 mm. in ♂, 7-8 mm. in ♀.

Hindwing brownish gray. Cilia pale brownish cinereous; somewhat paler apically.

Male-genitalia (fig. 13): Tegumen rather broad, bilobed at top. Socius drooping, narrow and long. Transtilla absent. Valva narrow, with narrow costa scarcely edged. Brachiola rather large. Sacculus with basal 1/3 broad, gently curved, forming a shallow excavation, ending in spine-like tuft tip. Aedeagus rather short, broad basally, narrowed apically; cornuti four short spines.

Female-genitalia (fig. 14): Ovipositor lobe narrow, curved. Limen rather broad, with narrow pointed lateral projection; caudal margin of limen straight. Ostium small, situated on cephalic margin of limen. Ductus bursae slightly enlarged on proximal portion, containing a faintly sclerotized portion. Bursa copulatrix weakly membranous, without signum.

Holotype: Tama Hills, Tokyo, Honshu, 27 June 1958, M. SUZUKI leg.

Paratypes: Ussui Pass, Gunma Pref., Honshu, 11 Aug. 1956, 1 ♂, A. KAWABE leg.; Kawagoe, Saitama Pref., Honshu, 17 June 1957, 1 ♂, 2 ♀, A. KAWABE leg.; Tama Hills, Tokyo, Honshu, 27 June 1958, 1 ♀, M. SUZUKI leg.; 14 July 1958, 1 ♂, A. KAWABE leg.; Hatagaya, Tokyo, Honshu, 26 June 1933, 1 ♀, ; Ōdaru Spa, Shizuoka Pref., Honshu, 5 July 1959, 1 ♀, H. INOUE leg.

The types are in my collection, except a pair of paratypes preserved in Zoological Institute, Polska Akademia Nauk, Krakow and a female paratype in Ent. Lab. Tokyo Agr. Univ., Tokyo.

Acleris nigrilineana sp. nov. (figs. 1, 2, 11, 12, a, b)

Antenna simple in both sexes, gray light-ringed, its scape obscurely annulate whitish above, pearl gray interiorly. Head gray, scales tipped with whitish. Palpus subascending; median joint dilated apically, gray mixed with pearl gray exteriorly, pearl gray interiorly; terminal segment

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short, gray exteriorly, paler interiorly. Thorax, crest and tegula dark gray, the latter paler in some specimens. Abdomen silverly gray; anal tufts light gray. The ground color of the forewing varies from pale grayish brown to dark grayish brown; basal area bordered by a distinct black line of raised scales darker than the ground color, dense tufts of scales in fold; another such raised scale line from $\frac{1}{3}$ of costa to about $\frac{1}{2}$ of dorsum, but in some specimens obscured and not continuous; distal area of wing from the above line rather dark, scattered with some raised striae or spots of blackish scales, which varies in some specimens; apical area and tornus concolorous with ground color. Cilia concolorous with the wing. Under side of forewing with the costa streaked obliquely with pale cinereous and grayish brown alternately. The length of the forewing about 10–11 mm.

Hindwing pale, shining, whitish gray, darkening towards apex and termen. Cilia paler than the wing. Under side of the hindwing with the costal and terminal portions overspread with grayish brown striae, somewhat reticulate.

Male-genitalia (fig. 11): Tegumen broad, bilobed at top, with two distinct apical projections. Socius very large, erected, narrow above, much dilated towards below. Transtilla a rather narrow band. Valva moderate, rather narrow, with narrow edged costa. Brachiola moderate. Sacculus narrow, hardly sclerotized, with four large and small thorns being from about $\frac{1}{3}$ to before $\frac{1}{5}$ of the lower edge, but especially on the left the number of thorn varies individually from three to five; the lower margin strongly curved towards costa beyond half, then strongly recurved forming an excavation, terminating in hair-tuft tip. Aedoeagus short, very wide, opening towards tip; the right side of the apex with a broad angle, the left forming a blunt thorn; cornuti one or two large and strong spines.

Female-genitalia (figs. 12, a, b): Ovipositor lobe small, narrow, curved. Limen very broad, with very short, broad lateral projection, much sclerotized, divided apically; caudal margin of limen simple, rounded; cephalic margin of limen with an upheaval, apron-like plate, which is much sclerotized, broadened towards both sides (the form of the plate more or less varies in mounting technique as shown in the figures 12, a.) Ostium broad, sclerotized about two-thirds of proximal portion, then strongly narrowed before narrow and long ductus bursae. Bursa copulatrix moderate, with a stellate signum.

Holotype: Asama-sanso, Nagano Pref., Honshu, 4 May 1962, A. KAWABE leg.

Paratypes: Asama-sanso, Nagano Pref., Honshu, 4 May 1962, 3♀ ♀, A. KAWABE leg.; Shigakōgen, Nagano Pref., Honshu, 2 & 3 May 1962, 1♀, A. KAWABE leg.; Utsukushigahara, Nagano Pref. Honshu, 12 Oct. 1957, 1♂, M. SUZUKI leg.; 3 May 1959, 2♀ ♀, A. KAWABE leg.; Mt. Takao, Tokyo, Honshu, 6 Apr. 1951, 1♂, S. SUGI leg. (abdomen lost); 28 Feb. 1953, 1♂, K. JIMBO leg.; Setagaya, Tokyo, Honshu, 26 Feb. 1962, 1♂, 1♀, K. MIZUSAWA leg. All the types are in my collection.

Acleris apicana HÜBNER (figs. 5, 6, 7, 8, a, 9)

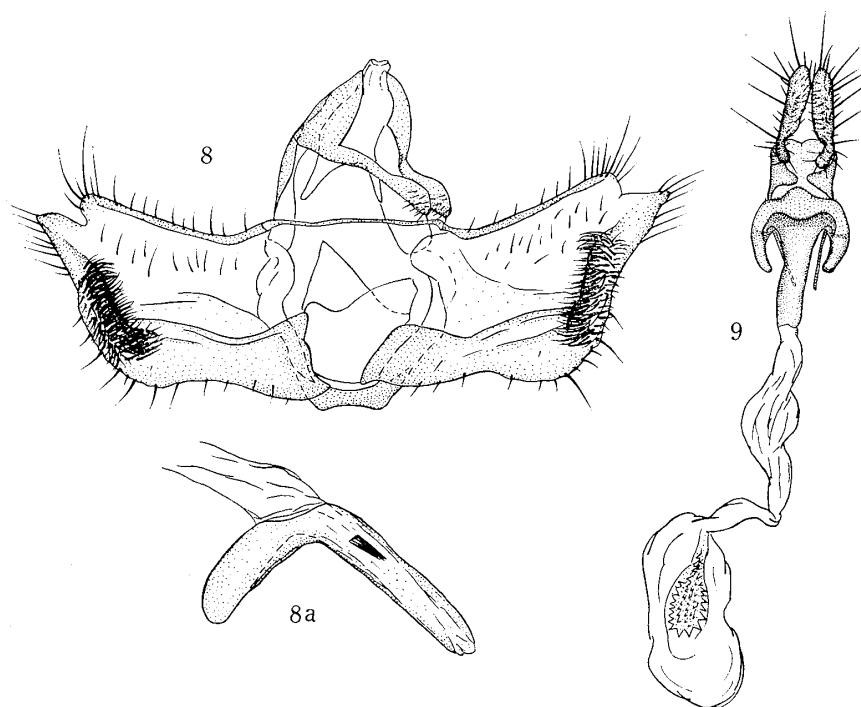
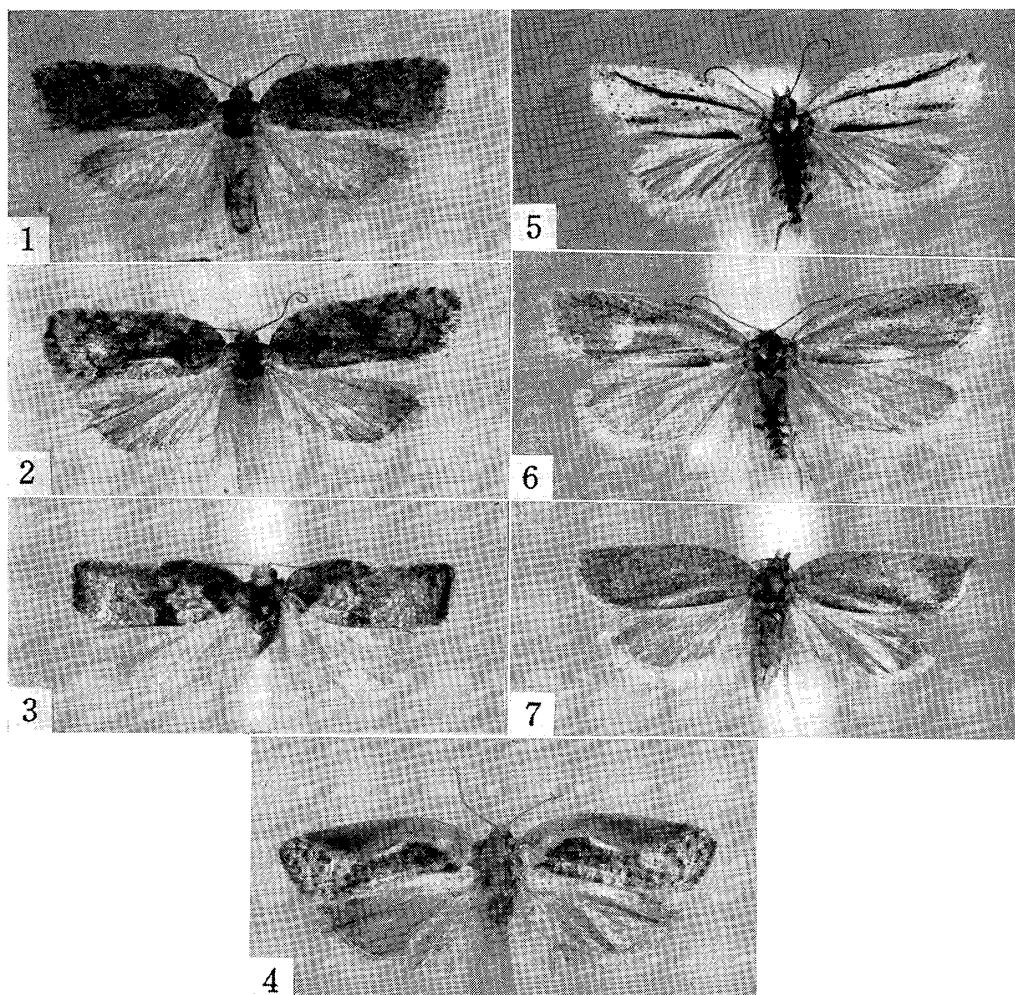
Phalaena apicana HÜBNER, 1793, Samml. auserl. vog. u. Schm., p. 10, t. 49.

Acalla rufana: KENNEL (nec. SCHIFF. & D.), 1910, Pal. Tort. p. 89, t. 5 fig. 26.

Peronea rufana: PIERCE & METCALFE (nec. SCHIFF. & D.), 1922. Gen. Tortr. B. Insl. p. 22, t. 9.

Acleris apicana: OBRATSOV, 1956. Tijd. v. Ent. Deel 99, Afl. 3, p. 147.

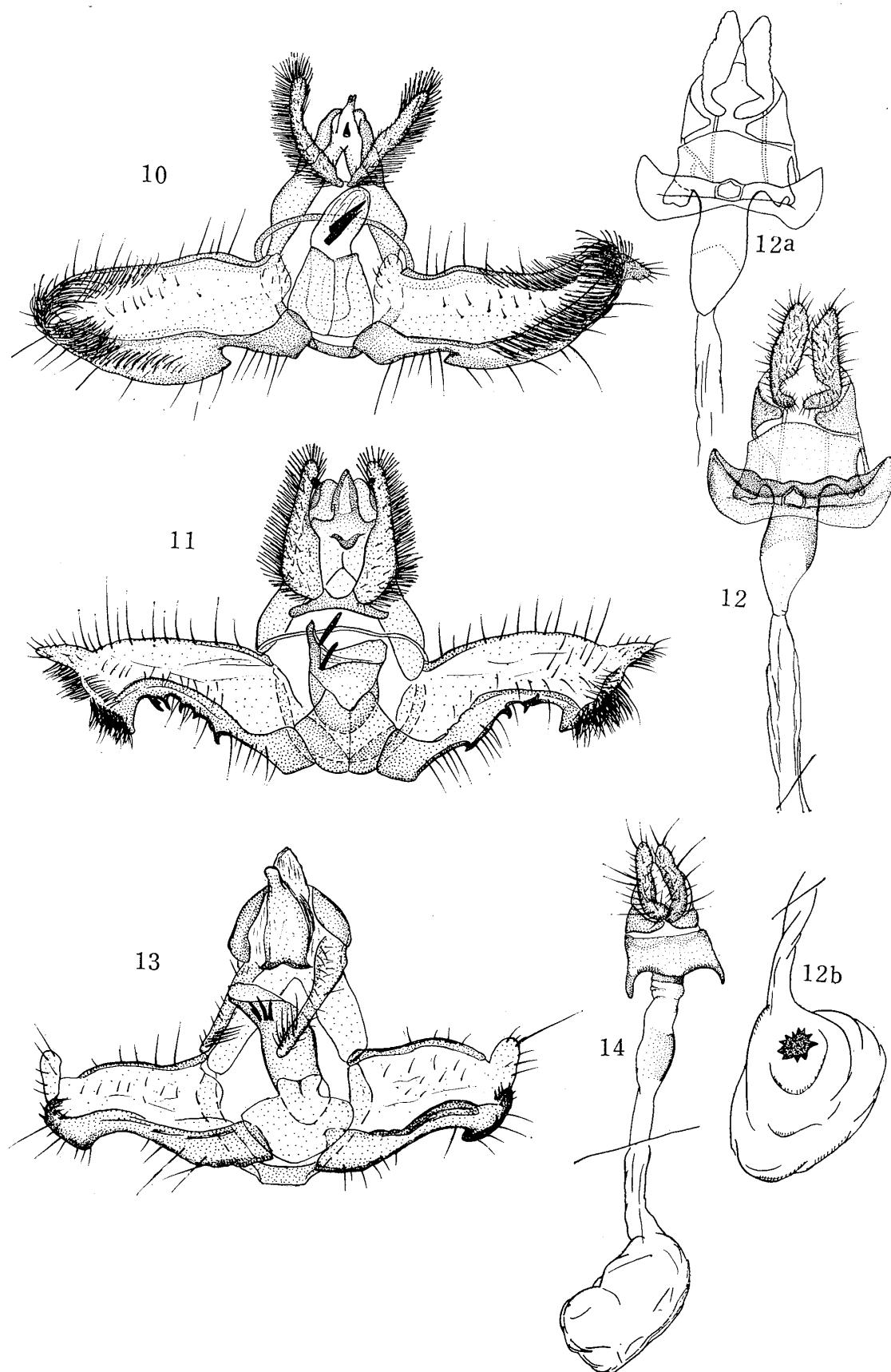
Male-genitalia (figs. 8, a): Tegumen bilobed at the top. Socius with narrow, long arm, somewhat dilated apically (viz. earpick-like), rugose rather than hairy. Transtilla present. Valva rather



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shorter and broader with distinct edged costa. Brachiola rather short. Sacculus broad, rather gently sinuate on the lower margin, terminating in a hair-tuft tip. Aedoeagus hardly curved; cornuti of five short spines.

Female-genitalia (fig. 9): Ovipositor lobe narrowly elongate. Limen rather narrow, projecting at the middle of caudal margin, with long, broad lateral projection, which bent slightly inward apically. Ostium long and narrow, extending far beyond the end of the lateral projection. Ductus bursae without sclerotized portion. Bursa copulatrix with a large scobinate signum.

Specimens examined: Shibecha, Kushiro, Hokkaido, 10 Nov. 1958, 1♂, K. IJIMA leg.; Utsukushigahara, Nagano Pref., Honshu, 12 Oct. 1957, 2♂♂, 6♀♀, M. SUZUKI leg.; 3 & 5 May 1959, 5♂♂, 12♀♀, A. KAWABE leg.

Unrecorded from Japan, but I have had an opportunity to examine the above recorded specimens from Japan. According to Dr. J. RAZOWSKI, he could not find differences between Japanese and European specimens in the superficial and the genital characters. This species varies considerably from grayish white to grayish brown in the ground color, and also in the maculations as shown in figures 5, 6, 7 of the present paper.

Explanation of figures

1. *Acleris nigrilineana* sp. nov., ♀ -Paratype-
2. ditto, ♂ -Paratype-
3. *Acleris pulchella* sp. nov., ♂ -Paratype-
4. *Acleris bicolor* sp. nov., ♀ -Paratype-
5. *Acleris apicana* HÜBNER, ♀
6. ditto, ♂
7. ditto, ♀
8. ditto, ♂ -genitalia, a, aedoeagus
9. ditto, ♀ -genitalia
10. *Acleris bicolor* sp. nov., ♂ -genitalia, -Holotype-
11. *Acleris nigrilineana* sp. nov., ditto, -Paratype-
12. a, b. ditto, ♀ -genitalia, -Paratype-
13. *Acleris pulchella* sp. nov., ♂ -genitalia, -Holotype-
14. ditto, ♀ -genitalia, -Paratype-

摘要

日本産ハマキガ亜科の3新種と1未記録種の記載

Acleris bicolor KAWABE マエアカハマキ（新称）

記載に用いた3個体の標本はいずれも軽井沢周辺で、11月下旬に得られたものである。しかし、星野氏から頂いた雌雄の個体はいずれも腹部がなかったので、筆者はまだ雌の交尾器を検討していない。

Acleris pulchella KAWABE マエキハマキ（新称）

本種は RAZOWSKI 博士が新種として、記載する準備をしていたものだが、筆者が確認のために博士に送った標本と一致したため、その記載する権利を筆者に譲ってくれたものである。関東地方の平地で普通にみられる。

Acleris nigrilineana KAWABE スジグロハマキ（新称）

本州の山地、平地からの個体を検討したが、中部山地では普通に燈火に飛来する。前翅の地色は淡灰褐色から暗灰褐色のものまであり、前翅にみられる隆起細線や鱗片の隆起点刻は個体によって変化する。又雄の交尾器のSacculus にある小突起は左右不相称で、左側では個体によって3個から5個まで変化する。

Acleris apicana HÜBNER ゴマフミダレハマキ（新称）

本種は日本未記録種である。RAZOWSKI 博士によるとヨーロッパの個体と完全に一致する。北海道、本州からの標本を検討したが、特に筆者は美ヶ原で、昼間、多数の個体を採集した。個体によって、前翅の地色、斑紋は著しく変化する。